

CLAIM AMENDMENTS

1-9. Canceled

10. (Currently Amended) A ~~The tire monitor of claim 9 wherein the~~ configured for mounting on a vehicle, the tire monitor comprising:
a first shock sensor to produce a first motion signal; a second shock sensor to produce a second motion signal; and a control circuit is coupled to the first shock sensor and the second shock sensor and configured to determine ~~the~~ right side - left side position information for the tire monitor based on a lag - lead relationship of the first motion signal and the second motion signal.

11. (Currently Amended) The tire monitor of claim 9 10 wherein the control circuit is configured to alternately sample the first motion signal and the second motion signal.

12. (Currently Amended) The tire monitor of claim 9 10 further comprising:
a tire condition sensor to produce a tire condition signal; and a radio circuit coupled to the control circuit to transmit radio signals based at least in part on the tire condition signal.

13-35. Canceled

36. (Currently Amended) The remote tire monitor system of claim 35 42 wherein the pair of shock sensors comprises:
a first piezoelectric sensor mounted to produce the first sensor signal in response to a change in force applied along a first axis; and
a second piezoelectric sensor mounted to produce the second sensor signal in response to a change in force applied along a second axis.

37. (Currently Amended) The remote tire monitor system of claim ~~35~~ 42 wherein the pair of shock sensors comprises:
first and second piezoceramic sensors.

38. (Currently Amended) The remote tire monitor system of claim ~~35~~ 42 further comprising:
a received signal strength indication (RSSI) circuit to determine relative strength of transmitted radio signals from tire monitors received at the control unit.

39. (Previously Presented) The remote tire monitor system of claim 38 wherein the transmitted radio signals include the position information.

40. (Previously Presented) The remote tire monitor system of claim 39 wherein the control unit is configured to determine respective positions of the plurality of tire monitors on the vehicle in response to the position information in the radio signals transmitted by respective tire monitors and the relative signal strength of the transmitted radio signals.

41. (Previously Presented) The remote tire monitor system of claim 40 wherein the transmitted radio signals include right side - left side position information determined at the respective tire monitors in response to the first and second sensor signals and wherein the control unit determines forward - rear position information for the respective tire monitors based on the relative signal strength of the transmitted radio signals.

42. (Currently Amended) A ~~The~~ remote tire monitor system of claim 38 comprising:
a control unit; and
a plurality of tire monitors mountable on respective wheels of a vehicle to transmit
radio signals to the control unit, the respective tire monitors each including a pair of
shock sensors to produce first and second sensor signals which are proportional to a
change in force applied to the sensors, and a control circuit configured to determine
right side - left side position information for the respective tire monitor based on the
first and second sensor signals from the pair of sensors and wherein the transmitted
radio signals include temperature information and wherein the control circuit
operates in response to compensation software, the control circuit in conjunction
with the compensation software configured to compensate the relative strength of
the transmitted radio signals using the temperature information.

43. (Currently Amended) A ~~The~~ tire monitor of claim 12 further configured for
mounting on a vehicle, the tire monitor comprising:
a first shock sensor to produce a first motion signal;
a second shock sensor to produce a second motion signal;
a control circuit coupled to the first shock sensor and the second shock sensor to
determine right side - left side position information for the tire monitor based on
the first motion signal and the second motion signal;
a radio circuit coupled to the control circuit to transmit radio signals based at least in
part on a tire condition signal; and
at least one temperature sensor electrically coupled to the radio circuit, and wherein the
transmitted radio signals include including temperature information, and wherein
the control circuit operates operating in response to compensation software, the
control circuit in conjunction with the compensation software configured to
compensate the relative strength of the transmitted radio signals using the
temperature information.

44. (New) The tire monitor of claim 10 wherein the first shock sensor comprises a first piezoelectric sensor mounted to produce the first motion signal in response to a change in force applied along a first axis, and said second shock sensor comprises a second piezoelectric sensor mounted to produce the second sensor signal in response to a change in force applied along a second axis.
45. (New) The tire monitor of claim 10 wherein the shock sensors comprise first and second piezoceramic sensors.
46. (New) The remote tire monitor system of claim 42 wherein the control circuit is configured to alternately sample the first sensor signal and the second sensor signal.
47. (New) The tire monitor of claim 43 wherein the control circuit is configured to alternately sample the first motion signal and the second motion signal.
48. (New) The tire monitor of claim 43 wherein the first shock sensor comprises a first piezoelectric sensor mounted to produce the first motion signal in response to a change in force applied along a first axis, and said second shock sensor comprises a second piezoelectric sensor mounted to produce the second sensor signal in response to a change in force applied along a second axis.
49. (New) The tire monitor of claim 43 wherein the shock sensors comprise first and second piezoceramic sensors.